



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,795	01/10/2005	Fabian Castro Castro	P17069US1	9966
27045	7590	01/28/2009	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			KIM, HEE SOO	
			ART UNIT	PAPER NUMBER
			2457	
			MAIL DATE	DELIVERY MODE
			01/28/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,795	<b>Applicant(s)</b> CASTRO ET AL.	
	<b>Examiner</b> HEE SOO KIM	<b>Art Unit</b> 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-32, 35, 36 and 38-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-32, 35, 36 and 38-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This office action is responsive to amendment filed on October 9<sup>th</sup>, 2008.

Claims 27~32, 35, 36, and 38~46 are presented for examination.

#### ***Response to Amendment***

Claims 27~32, 35, 36, 40, and 43 have been amended.

The amendments to claims 27~32, 35, 36, and 38~46 does not sufficiently overcome the objections. The claims still contain elements that should not be capitalized. The Examiner found the fixes to be inconsistent and respectfully asks Applicant to thoroughly review all claims that contains words that should not be capitalized.

The amendments to claims 27~30, 40~44, and 46 does not sufficiently overcome the §101 rejection. Applicant has added the limitation "over a communication network..." to independent claims 27, 29, and 40 however, does not make them statutory. See rejection below.

#### ***Response to Arguments***

Applicant's arguments filed 10/29/08 have been fully considered but they are not persuasive.

In response to applicant's argument (Pg. 17, ¶2), that Wilson does not teach or suggest, "a plurality of protocol adapters, each protocol adapter for communicating with a specific protocol technology, at least one protocol adapter for communicating with a specific protocol technology used at the network element..." Examiner respectfully disagrees. Wilson taught the manager establishes an association which can be seen as

a communication link, to the agent of the managed system and when this association is set up, the manager and the agent can communicate [¶61]. Even though Fig. 1 shows a single manager in communication with a single managed system, Wilson taught the number of managed systems can be any number in principle [¶63]. Since an interface is facilitated to communicate with these managed systems, and the managed systems utilize different technologies, would obviously require specific protocol adapters in order for the managing system to communicate with each of the managed systems.

In view of such, the rejection is as follows:

#### ***Claim Objections***

Claims 27~32, 35, 36, and 38~46 are objected to because of the following informalities:

- The claims contain elements that should not be capitalized. For example, in claim 27 recites “Management Entity having...Provisioning Node...Network Element...Protocol Adapter and etc.”

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 27~30, 40~44, and 46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims recite elements (i.e. “protocol adapter”, “Manager”, “means for communicating with a mapping module...”, “...object classes” and etc...) that all may

reasonably be implemented as software routines. The specification does not mention any hardware components that may be interrelated with the software elements provided above. Therefore, the claims are rejected as a system of software per se, failing to fall within a statutory category of invention. Furthermore, adding the limitation "...over a communication network..." does not positively recite the communication is actually made over a communication network (intended use). The Examiner broadly interprets the communication network can be a wireless network (signals, which would also fall under the 101 rejection as being non-statutory). Unless explicitly stated what the communication network is, renders the claims non-statutory and therefore, the rejection is maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27~32, 35, 36, and 38~46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (U.S 2002/0029298) in view of Applicant's Admitted Prior Art (5/31/08 Applicant's arguments) hereinafter AAPA.

Regarding Claims 27 and 29,

Wilson taught a management entity having a provisioning node side intended for provisioning a service towards a network element by sending provisioning orders, the management entity supporting a Subscription Management Generic Interface that includes a SuM-GI Data Model, the management entity comprising:

a number of protocol adapters, each protocol adapter for communication with a specific protocol technology, at least one protocol adapter for communicating with a specific protocol technology used at the network element [¶61, Ln. 3~7];

a SuM-GI manager for sending provisioning orders to create and manage subscriptions to services in the network element through the one protocol adapter with a number of SuM-GI operations operating on objects classes included in the SuM-GI Data

Model, and independently from an internal data model used by the network element [¶60, ¶61];

Wilson did not specifically teach means for communicating over a communication network with a mapping module in the network element for mapping a provisioning order received from the SuM-GI manager into a number internal operations operating on an internal data model supported by the network element and for the network element to register itself at the SuM-GI manager and for establishing the specific protocol technology used at the network element, and wherein the SuM-GI Data Model comprises at least one object class, selected from: SubscriptionIRP, SubscriptionFunction, and ServiceProviderFunction object classes.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI operations operating on object classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], the mapping would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claim 31,

Wilson taught a method for provisioning services to subscribers of a communication network between a Management Entity that has a Provisioning Node side for provisioning a service, and a number of Managed Entities each Managed Entity having a Provisioned Node side intended for receiving provisioning orders from the Management Entity, the method comprising the steps of:

registering each managed entity of the number of managed entities with the management entity and establishing a specific protocol to acknowledging of each managed entity with the management entity [¶61];

assigning a specific protocol technology for communication between a SuM-GI Manager at a Provisioning Node side and each SuM-GI Agent at respective Provisioned Node sides [¶61, Ln. 3~7];

sending provisioning orders from a SuM-GI Manager toward at least one SuM-GI Agent with a number of SuM-GI Operations for operating on Object Classes included in a SuM-GI Data Model [¶60, ¶61];

receiving the provisioning orders at a SuM-GI Agent in the Provisioned Node side of at least one Managed entity with a number of SuM-GI Operations operating on Object Classes included in the SuM-GI Data Model [¶60, ¶61]; and

Wilson did not specifically teach mapping in this Provisioned Node side the provisioning order received from the SuM-GI Manager with the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model into a number of internal operations operating on an internal data model supported by the Managed Entity and wherein the SuM-GI Data Model comprises any Object Class, or combinations thereof,



selected from a group of Object Classes that includes: SubscriptionIRP, SubscriptionFunction and ServiceProviderFunction object classes.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claim 32,

Wilson teaches upon receipt of a provisioning order from a Subscription Management Generic Interface Manager in a SuM-GI Agent at a Sub-Network Manager, the method further comprising the steps of:

transferring the provisioning order received from a first SuM-GI Manager at a Provisioning Node side of a Management Entity or higher hierarchical Managed Entity toward a second SuM-GI Manager at a Provisioning Node side of the current node [¶68, ¶69];

assigning a specific protocol technology for communication between the second SuM-GI Manager at the Provisioning Node side of the current node and each SuM-GI

Agent at respective Provisioned Node sides of lower hierarchical Managed Entities [¶68, ¶69]; and

sending provisioning orders from the second SuM-GI Manager toward at least one SuM-GI Agent at a Provisioned Node side of a lower hierarchical Managed Entity [¶68, ¶69];

Wilson did not specifically teach a number of SuM-GI Operations intended for operating on Object Classes included in a SuM-GI Data Model.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claims 28, 30, and 35,  
Wilson taught substantially all the limitations of claims 27, 29 and 31 however, failed to explicitly teach the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Data Model further comprising any Managed Object Class, or combinations thereof, selected from a group of Object Classes that includes:

Subscription, Subscriber, ProvidedService, User and UserServicePreferences object classes.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claims 36, 41, and 43,  
Wilson taught substantially all the limitations of claims 27, 29, and 31 however, failed to explicitly teach the Subscription Management Generic Interface (SuM-GI) includes a SuM-GI Operation set intended to act on the SuM-GI Data Model and comprising any Operations, or combinations thereof, selected from groups of operations that include: creating, modifying, removing and getting: Subscriber, User, Provided Service, Subscription; adding, removing and getting User to or from a given Subscription; and setting and getting User Service Preferences for a user under a given Subscription.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claim 38,  
Wilson taught the Subscription Management Generic Interface (SuM-GI) is arranged for holding specific attributes or characteristics of those objects included in the SuM-GI Object Model in a generic information placeholder associated to each particular object [¶62, ¶69].

Regarding Claim 39,  
Wilson taught the Subscription Management Generic Interface (SuM-GI) is arranged for allowing each individual SuM-GI Agent to determine whether or not each particular attribute in a list of attributes is applicable in the node where the SuM-GI Agent resides, the applicability depending on a specific internal data model in said node [¶62, ¶69].

Regarding Claim 40,

Wilson taught substantially all the limitations of claims 27, 29, and 31 however, failed to explicitly teach in a communication network, a Subscription Management Generic Interface (SuM-GI) comprising: a SuM-GI Data Model and SuM-GI Operations (Pg.5, Par [0061]), for provisioning services to subscribers of the communication network wherein said Subscription Management Generic Interface (SuM-GI) operates in accordance with an Integration Reference Point (IRP) specification within an IRP Generic Network Resource Model, wherein the SuM-GI Data Model comprises at least one Object Class selected from a group of Object Classes that includes: SubscriptionIRP, SubscriptionFunction, and ServiceProviderFunction object classes.

Applicant has stated in the arguments filed on May 31<sup>st</sup>, 2008 that the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model are defined object classes well known to one skilled in the art (AAPA: Pg. 13, ¶1). Since Wilson taught mapping between managed objects of the managed system and resources are provided by a standardized telecommunications network [¶59, ¶60], would obviously utilize a data model to map orders received from the manager.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to combine, the SuM-GI Operations operating on Object Classes of the SuM-GI Data Model as admitted by Applicant, into Wilson's managing system, as it would provide well defined subscription provisioning across heterogeneous protocols or provisioned entities.

Regarding Claim 45,

Wilson taught at least one Managed Entity is a Network Element in which a given service is provisioned, and wherein a number of Managed Entities may optionally form a

hierarchical Sub-Network Manager structure interposed between a centralized Management Entity acting as a Network Manager, and a number of Network Elements, each Sub-Network Manager comprising:

a SuM-GI Manager, a SuM-GI Agent and a number of Protocol Adapters, thus presenting a Provisioned Node side towards a Provisioning Node side at a Network Manager or at another Sub-Network Manager, and a Provisioning Node Side towards a Provisioned Node side at a Network Element or at another Sub-Network Manager [¶62, ¶68, ¶69].

Regarding Claims 42, 44, and 46,  
Wilson taught both SubscriptionFunction and ServiceProviderFunction object classes inherit from a Managed Object Class (ManagedElement) representing telecommunication equipment or network element related functions [¶63, ¶65].

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE SOO KIM whose telephone number is (571)270-3229. The examiner can normally be reached on Monday - Thursday 8:00AM - 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. K./  
1/22/09

/ARIO ETIENNE/  
Supervisory Patent Examiner, Art Unit 2457